



We Claim:

1. A method for providing for the graceful degradation of the performance of a computer application comprising the steps of:
 - periodically monitoring performance characteristics of resources used by said application; and
 - modifying the behavior of said application, based on a comparison of said monitored performance characteristics to one or more predetermined values.
2. The method of claim 1 wherein said comparison indicated that a particular action by a user of said application will result in an error or degraded performance.
3. The method of claim 1 wherein the user interface of said application is modified.
4. The method of claim 1 wherein the functionality of said application is curtailed.
5. A system for providing for the graceful degradation of the performance of a computer application comprising:
 - one or more sensors;
 - one or more controllers; and
 - one or more actuators.
6. The system of claim 3 further comprising one or more consoles.
7. The system of claim 5 wherein said sensors measure the performance characteristics of various components of said application.
8. The system of claim 7 wherein said measurements are communicated to said one or more controllers.

9. The system of claim 5 wherein said one or more controllers decide upon a course of action based on measurements of the performance characteristics of the components of said application.
10. The system of claim 9 wherein said one or more controllers apply rules to modify the behavior of said application.
11. The system of claim 9 wherein said rules can be built-in or user-defined.
12. The system of claim 9 wherein said one or more controllers generate messages to other of said one or more controllers.
13. The system of claim 6 wherein said one or more controllers send information to said console for output to a user of said application.
14. The system of claim 9 wherein said one or more controllers send messages to said one or more actuators to effect said modification of said behavior of said application.
15. The system of claim 7 wherein said one or more sensors are embedded in the application code of said various of said components of said application.
16. The system of claim 7 wherein said one or more sensors utilize software calls to an operating system supporting the execution of said various components of said application.
17. The system of claim 7 wherein said one or more sensors are installed on a network are accessing said various components of said application as a client.
18. The system of claim 7 wherein said one or more sensors measure the response time and availability of various external resources or services required by said various components of said application.

- 
- 
19. The system of claim 7 wherein a single component of said application is monitored by a plurality of said sensors.
20. The system of claim 18 wherein said sensors utilize existing performance information.
21. The system of claim 7 wherein said sensors monitor performance characteristics explicitly specified by a user.
22. The system of claim 5 wherein said sensors can be generated and placed by said system.
23. The system of claim 5 wherein said one or more controllers can modify the behavior of said one or more sensors.
24. The system of claim 23 wherein said one or more controllers can specify the frequency by which said one or more sensors monitor said performance characteristics of various components of said application.
25. The system of claim 23 wherein said one or more controllers can specify the type of said performance characteristics of various components of said application which are to be monitored by said one or more sensors.
26. The system of claim 8 wherein said one or more controllers can specify the manner in which said one or more sensors communicate performance characteristic information to said one or more controllers.
27. The system of claim 14 wherein said actuators may effect modification of the behavior of discrete components of said application.
28. The system of claim 14 wherein said actuators may modify the user interface of said application.

29. The system of claim 28 wherein said actuators may restrict the functionality of said application.
30. The system of claim 14 wherein said actuators may be embedded in the code of said application.
31. The system of claim 14 wherein a plurality of actuators may be utilized to modify the behavior of one or more components of said application.
32. The system of claim 14 wherein multiple instances of an actuator may be deployed across replicated instances of external resources or services utilized by said application.
33. The system of claim 24 wherein said external resources or services includes a user interface rendering mechanism.
34. The system of claim 14 wherein a single component of said application may be affected by a plurality of actuators.
35. The system of claim 5 wherein a single controller is utilized.
36. The system of claim 5 wherein a plurality of controllers arranged in a master/slave hierarchy are utilized.
37. The system of claim 5 wherein a plurality of controllers arranged in a process group are utilized.
38. The system of claim 6 wherein information regarding the performance of said application is displayed on said console.

39. The system of claim 6 wherein a user of said system can enter specific rules at said console. to be applied by said one or more controllers to modify the behavior of said application.
40. The system of claim 6 wherein said console may communicate directly with said one or more sensors.
41. The system of claim 6 wherein said console may communicate directly with said one or more actuators.
42. The system of claim 6 wherein said console may communicate with said one or more sensors or said one or more actuators through said one or more controllers.
43. The system of claim 6 wherein a user of said system can enable or disable individual ones of said one or more sensors or said one or more actuators.
44. The system of claim 6 wherein said console displays messages and alerts generated by said system.
45. An improvement to a standard computer system comprising:
one or more sensors for checking the availability and performance of external resources or services required by various components of an application running on said system;
one or more controllers for collecting information from said one or more sensors and applying rule-base criteria to said information to determine the performance and/or availability of said resources or services; and
one or more actuators for modifying the behavior of said application, based on information collected by said one or more controllers.
46. The improvement of claim 45 wherein said application may be web-based.

47. The improvement of claim 45 wherein said application is a multi-tiered client/server application.

48. The improvement of claim 45 wherein said resources and said services may be supplied by systems connected via a network.

49. The improvement of claim 48 wherein said sensors, controllers, actuators and consoles communicate via said network.

SECRET